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Post-Partum Care: A Systematic Review

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ABSTRACT

Purpose
To determine the effectiveness of post-partum care to enhance mothers and newborn safety.

Data sources
Electronic search of PubMed, Google Scholar, CAS Google Scholar, Yahoo, Cochrane, Research Gate of post-partum care websites and bibliographies of included articles and key journals.

Study selection
English and French language studies published between January 2009 and August 2024 that measured the effectiveness of post-partum care using quantitative or qualitative measures of good practices, mother and new-born safety. Studies included were survey, quasi-experimental, systematic review, task force analysis based on essentially on experts' professional experience, phenomelogical, retrospective and one case-control.

Data extraction
Data extraction and critical appraisal were conducted by three system-internal and one independent reviewer, the statistician, for ethical consideration. Study design, intervention, level of application, setting, study participants, post-partum care standards, measures and implementation and impact lessons were extracted from the included articles.

Results of data synthesis
Over 600 articles were screened for inclusion, of which 25 full text articles were included in data synthesis. Among them, 14 survey, 2 quasi-experimental, 4 systematic review, 1 task force analysis based essentially on experts' professional experience, 1 phenomelogical, 2 retrospective and one case-control studies met the inclusion criteria (figure 1) and cut-across the specific objectives of the study. As for the qualitative studies, they were 2.

Conclusions
The WHO's guide for essential practice in pregnancy, childbirth, postpartum and new-born care remain the most broad standards employed by health facilities across the world for post-partum care and it is supported by the WHO standards for improving quality of maternal and new-born care in health facilities. Post-partum care processes have been highly standardized over the past decades with the provision of more comprehensive guideline to help health facilities in this respect. There is sufficient evidence as depicted by the literature for a strong face validity of these guides and their effectiveness has been proven through numerous scientific evidences. However, these guides have been contextualized on some specific areas to suit the requirements of specific settings. Governments and organisations are advised to consider the socio-cultural and political realities of their countries while using these guides which of course at several levels have open brackets for such contextualization.

KEYWORDS: *Pregnancy, childbirth, postpartum, mother, new-born, Care, systematic review*

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INTRODUCTION

The postpartum period begins immediately after the birth of the baby and extends up to six weeks (42 days) after birth, majority of maternal morbidities and mortalities occur during this period, therefore, proper maternal management and care are vital. It is a critical phase in the lives of mothers and their families.

During this time, a wide range of postpartum complications occur, in turn proper maternity based-care is needed to prevent maternal morbidities and mortalities. To solve this problem, our study aims at investigating the elements that must be included in the framework of the maternity care for women in the postpartum period as this will help render proper care to women in their postpartum period, prevent maternal morbidities and mortalities and alleviate the suffering of the women, their families and the nation at large. Based on these scientific evidences, there is growing interests on improving post-partum care given the numerous setbacks that take place after birth and in some cases where delivery went on very well due to negligence or inadequate follow up of the mother during the post-partum period. This is reflected in the growing number of peer-reviewed articles, guidelines and standards as well as other literature reports on post-partum care. Mother and new-born safety have been a cause for concern and governments, organizations and even jurisdictions have made it key components of their health and safety policies. The growing attention paid to mother and new-born safety has prompted for numerous scientific researches both prospective and retrospective that over decades have helped improved and further standardize guideline for mother and new-born safety during the post-partum phase.

METHODS

Data sources

An electronic search was conducted of the PubMed, Google Scholar, CAS Google Scholar, Yahoo, Cochrane, ResearchGate,. Medical subject heading search terms and keywords were used notably 'post-partum care' and 'Post-natal follow up'. Additionally, bibliographies of included articles and key journals were hand searched. The search languages were English and French. In French, the main search keywords were 'Suivi post-partum' and 'suivi médical de la mère après l'accouchement'. This was important and peculiar to this study context given that the official languages used in Cameroon are English and French as this gave room for the exploitation of both English and French literatures.

Duration

The duration of the systematic review was 11 months, from October 2023 to August 2024.

Study selection

Inclusion criteria:

English and French language studies published between January 2009 and to August 2024 focusing on post-partum care with particular reference to mother and new-born safety were considered as to cover a period of 15 years. Assessment of effectiveness was based on published standards and guidelines, survey studies, randomised controlled trials (RCTs), non-RCTs or quasi-experimental studies, controlled before and after studies, interrupted time series, historically controlled studies, longitudinal and cross-sectional studies, multi country studies. Studies in reference health facilities, frontline health facilities and in communities were included. Both quantitative and qualitative studies were considered. Information were extracted from peer-reviewed journals, abstracts, websites, and cited authors within articles.

Exclusion criteria:

All studies not dealing with post-partum care were excluded except inspirations from other systematic review works not dealing with the same topic but that were in the frame of health care for structural reasons and for comparing approaches of systematic review. All studies before 2009 were excluded.

Data extraction and analysis

Data extraction and critical appraisal of included studies were conducted by four independent reviewers (NNE, FL and NC), with disagreements settled by a fourth reviewer (MBSA). Implementation data and data from studies using mixed method evaluations were also extracted and reviewed. A meta-analysis was not possible due to insufficient homogeneity (populations, interventions, outcome measures and follow-up periods) of studies but where it could apply, it was done and reported. Consequently, analysis considered essentially common themes, conceptual and analytical trends and presented in a narrative format.

RESULTS

Over 600 articles were screened for inclusion, of which 25 full text articles were included in data synthesis. Among them, 14 survey, 2 quasi-experimental, 4 systematic review, 1 task force analysis based on essentially on experts' professional experience, 1 phenomelogical, 2 retrospective and one case-control studies met the inclusion criteria (figure 1) and cut-across the specific objectives of the study. As for the qualitative studies, they were 2 were Included studies were conducted in several countries in Africa, in USA, Iran, Pakistan, Palestine, Tanzania, Cameroon, Kenya, Iran and India. A study by WHO was conducted in 33 different African countries. The period for the systematic review ranged from 15 to 24 years. As for the retrospective study, the period considered ranged from 16 to 24 years. The duration for the cross-sectional survey was generally three months or less. Surveys that used adapted questionnaire or relied on existing mode such as Person-Centered Maternity Care (PCMC) or self-developed questionnaire.

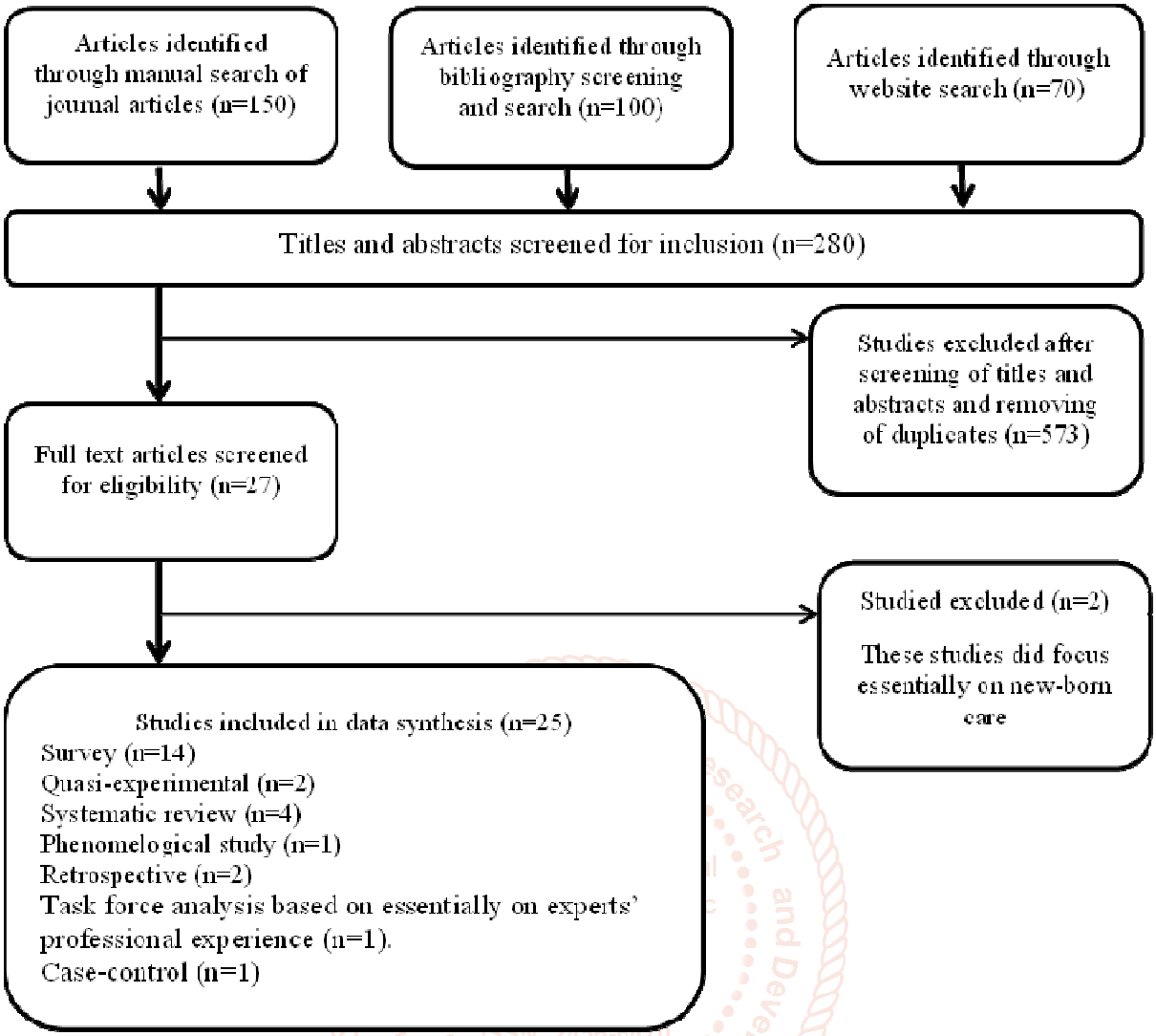

Figure 1: Flow chart of search result

SUMMARY AND DISCUSSION OF STUDY FINDINGS

Priority issues

WHO opined that much progress has been made during the past two decades in coverage of births in health facilities; however, reductions in maternal and neonatal mortality remain slow. With increasing numbers of births in health facilities, attention has shifted to the quality of care, as poor quality of care contributes to morbidity and mortality. The period around childbirth is the most critical for saving the maximum number of maternal and newborn lives and preventing stillbirths . Person-Centered Maternity Care (PCMC) is known as one of the most important components of maternal care. Every woman has the ultimate right of respectful health care. The WHO Multicountry Survey on Maternal and Newborn Health, with data on more than 300 000 women attending 359 health care facilities in 29 countries, showed a poor correlation between coverage of "essential interventions" (e.g. the proportion of the population who had received an indicated intervention, such as women with eclampsia who received magnesium sulfate) and maternal mortality in health facilities. Studies also show that high-quality care requires appropriate use of the available infrastructure, staff and commodities to ensure effective case management . High-quality care requires appropriate use of evidence-based clinical practices and non-clinical interventions, strengthened health infrastructure and optimum skills and a positive attitude of health providers. Lack of supportive care and respectful behavior experienced by pregnant women can act as a barrier to the utilization of health care services .

Guidelines and standards

The World Health Organization recently released new guidelines on postnatal care, which include recommendations for immediate postpartum monitoring. In light of the new guidelines, this presented an opportune moment to address the gaps in postpartum monitoring in low- and middle-income countries. The World Health Organization (WHO)'s new postpartum care guidelines, published in March 2022 (40) to update and expand on the 2014

guidelines, bring a renewed focus to the importance of prompt identification and management of complications in the immediate postpartum period. Motivated by the high burden of postnatal maternal and newborn mortality and by the quality revolution in global health; the new guidelines emphasize the importance of high-quality postnatal care—including continuous care and monitoring during the critical first 24 hours after childbirth, followed by at least 3 postnatal care contacts during the first 6 weeks after delivery—and of ensuring a positive postnatal experience for women and their newborns. The release of these guidelines makes this an opportune time to address gaps in the quality of immediate postpartum care in LMICs.

The first recommendation in the WHO's 2022 postnatal care guidelines states that, following childbirth, all women should have "regular assessment of vaginal bleeding, uterine tonus, fundal height, temperature, and heart rate (pulse) routinely during the first 24 hours, starting from the first hour after birth." Although the specific recommendations on postnatal assessment have not changed—it still holds that women should be monitored 4 times during the first hour after delivery . In the same perspective with the following 2016 guide, the 2015 guide aimed was to provide evidence-based recommendations to guide health care professionals in the management of women during pregnancy, childbirth and postpartum, and post abortion and newborns during their first week of life, including management of endemic diseases like malaria, HIV / AIDS, Tuberculosis and anaemia . This guide comprises eight standards of care and 31 quality statements are listed below . This 2016 guide supplement the previous one entitled 'Pregnancy, Childbirth, Postpartum and Newborn Care: A guide for essential practice' which third edition was published in 2015 which followed the 2004 version. It is this 2004 version that is recommended referred on the website of the Ministry of Public Health of Cameroon notably the French Version 'Prise en charge des complications de la grossesse et de l'accouchement: Guide destiné à la sage-femme et au médecin'. Earlier in 2011, WHO published 'Counselling for Maternal and Newborn Health Care: A Handbook for Building Skills' . The American College of Obstetricians and Gynecologists (ACOG) provided guidelines to optimize Postpartum (41) while the Centers for Disease Control and Prevention (CDC) made available Postpartum Care and Resources (42).

However, it was found limited adherence to guideline-recommended which poses major challenges to the outcome of post-partum care.

As for training or capacity building, the competency-based education (CBE) program, was recommended as well as the PDCA model . The PDCA cycle is divided into four stages, plan (P), execution / Do (D), check (C), and action (A).

Duration of post-partum

concluding with a comprehensive postpartum visit no later than 6 weeks after birth while recommending that all women have contact with their obstetrician–gynecologists or other obstetric care providers within the first 3 weeks postpartum . The postpartum period can be seen as the "fourth trimester," and has been described as a "critical transition period with unmet maternal health needs" thus aligning with the former who recommended a comprehensive post-partum visit not later than 12 weeks, thus aligning with the timeframe of a trimester here stated. These equally corroborate these authors that recommended that all women should ideally have contact with a maternal care provider within the first 3 weeks postpartum. This initial assessment should be followed up with ongoing care as needed, concluding with a comprehensive postpartum visit no later than 12 weeks after birth .

Gaps in practice

However, the efficiency and effectiveness of post-partum care differ across nations (44). It was highlighted differences in performance across nations with respect to post-partum care which could be attributed to the difference in culture and the relevance to clinical practice as corollary of the structure of the health system (44). The WHO guidelines presented an opportune moment to address the gaps in postpartum monitoring in low- and middle-income countries. Although most women remain in the health facility after delivery for at least the WHO-recommended 24 hours, the care provided during this postpartum stay is minimal. Across 33 LMICs with available Demographic and Health Survey (DHS) data from 2000 to 2016, only 66% of women who delivered in health facilities reported that they received at least 1 postpartum health check during their postpartum. Recent paradigm shifts in postpartum care have conceptualized the "fourth trimester" as a critical transitional period requiring tailored, ongoing health care. However, this concept presents challenges for providers, especially in low-resource settings . Adequate post-partum care for all individuals will require societal and environmental changes, such as access to transportation, childcare, providers in network, or universal insurance. These changes require significant efforts on the policy side, such as recent efforts to expand Medicaid coverage to 1 year postpartum .

Optimizing post-partum care

Health policymakers were requested to collaborate with midwifery staff to contextualized and optimized post-partum care . In the same vein, it was opined that incorporating the perspective of health system administrators and other health care team members may offer further insights on barriers and potential solutions . Other studies centered on health care providers resolved that the nature of the factors which influence health worker attitudes and behaviours suggests that strengthening health systems, and workforce development, including in communication and counseling skills, are important . In the same perspective, it was highlighted that optimizing care and support for postpartum families will require policy changes . Several recommendation were then made to refine policy in post-partum care (43) : (i) It was generally emphasized the need to educate all health staff in this regard to provide high-quality postnatal care. In the same vein, these authors argued that the lack of nurses' knowledge was because the hospital administration did not provide them with any refreshment and training programmes on quality of nursing performance during the postpartum period nor provide them with care standards for the postpartum period, nor with nursing procedures manuals which help in guiding their action; this lack of knowledge, of course, result in poor quality nursing performance ; (ii) to optimize the health of women and infants, postpartum care should become an ongoing process, rather than a single encounter, with services and support tailored to each woman's individual needs, this aligning with PCMC earlier recommended which equally strengthened this argumentation that pertained that the timing of the comprehensive postpartum visit should be individualized and woman centered ; (iii) prenatal discussions should include the woman's reproductive life plans, including desire for and timing of any future pregnancies. A woman's future pregnancy intentions provide a context for shared decision-making regarding contraceptive options; (iv) the comprehensive postpartum visit should include a full assessment of physical, social, and psychological well-being; (v) women with pregnancies complicated by preterm birth, gestational diabetes, or hypertensive disorders of pregnancy should be counseled that these disorders are associated with a higher lifetime risk of maternal cardiometabolic disease; (vi) women with chronic medical conditions, such as hypertensive disorders, obesity, diabetes, thyroid disorders, renal disease, mood disorders, and substance use disorders, should be counseled regarding the importance of timely follow-up with their obstetrician–gynecologists or primary care providers for ongoing coordination of care; (vii) for a woman who has experienced a miscarriage, stillbirth, or neonatal death, it is essential to ensure follow-up with an obstetrician–gynecologist or other obstetric care provider; (viii) optimizing care and support for postpartum families will require policy changes. Changes in the scope of postpartum care should be facilitated by reimbursement policies that support postpartum care as an ongoing process, rather than an isolated visit; and (ix) Attributes of health care managers to foster maternal health care were highlighted and include : Promoting supportive supervision of MHCPs by facility managers; professional development planning for MHCPs; ensuring accountability to professional standards and ethics at all levels of the health system; improving patients' understanding of medical practices and their rights; and raising providers' knowledge of local cultural practices in relation to pregnancy and childbirth.

Several studies indicated a strong link between demographic characteristics of mothers and their perception of post-partum care. Mothers' perceptions of the quality of postnatal were associated with their education level . Some studies expressed the relationship between the mothers' satisfaction and method of feeding, age, parity, and gravidity. Satisfaction with the health personnel was an important determinant of the mothers' perception of postnatal care . Other studies have also revealed the relationship between women and care providers as one of the important factors affecting the mothers' satisfaction with postnatal care . These results further stressed the importance of PCMC (105). Manager in some settings remarked that midwives were more likely to get angry at women who were primiparous and didn't have 'experience' with childbirth . Change is required to optimize postpartum care, as providers identified areas in which both providers and patients require additional support. This support may come in the form of administrative assistance, structural changes in clinic flow, support for care coordination, and increased access to educational resources for all parties . In a nutshell, changes require significant efforts on the policy side, such as recent efforts to expand Medicaid coverage to 1 year postpartum.

Research gaps

The limited available evidence on the quality of postpartum monitoring in LMICs paints a concerning picture.

CONCLUSION

This systematic review highlighted critical points that should be considered in having a comprehensive view of post-partum care, challenges and opportunities.

These range from priority issues to be considered in post-partum care, guidelines and standards orienting post-partum care, the duration of post-partum with the related recommendation for flexibility and patient-centred adaptation, gaps in practice and performance to be filled as to give equal chance to all women worldwide, the need to optimizing post-partum care to the research gaps.

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